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THE ACADEMY FOR EDUCATIONAL DEVELOPMENT

THE WATER EFFICIENCY AND PUBLIC INFORMATION FOR ACTION (WEPIA)

CAPACITY BUILDING PROJECT IN FUHEIS

REPORT

December, 2000

Introduction

WEPIA has decided to use the town of Fuheis as a “test market” for its plans to build capacity in schools to undertake its promotional and educational initiatives.

The project has the objective of training staff and students in 5 schools in Fuheis (2 private and 3 public) to improve water usage and water saving in the town, and to measure the effects of their campaign by carrying out surveys before and after their activities, checking knowledge, attitudes and perceptions.

MRO was required to train the staff and students in the market research techniques that will have to be used to carry out the pre-and post survey, while WEPIA employed its expertise on the auditing and educating the public on water saving issues designed to heighten awareness and change water usage behaviour for the better.

The Latin Patriarch of Jerusalem (LPJ) the “Latin School” acted as the main contact in this endeavour, we used their premises for the training sessions.

The first training session was conducted for the teachers (around 15) during which we explained about market research; techniques, methodologies, and aims. How market research will help to measure the difference in KAP before and after the WEPIA’s campaign. This was the pre- KAP survey, the post survey is due sometime in March 2001.

The second round of training was for around 60 high school students of both sexes. The students were trained on interviewing techniques. After the session they conducted interviews among themselves under the supervision of MRO’s staff, then they were asked to conduct interviews with their parents at home.

The Pre-Campaign KAP Survey consisted of interviews with a random sample of 344 households in Fuheis.

Random routes were drawn up for pairs of interviewers, each pair interviewing around 10 households about their water consumption and habits.

1. Water Supply and Conservation

- The frequency of water supply in the Fuheis area appears to vary considerably, reported frequencies ranging widely from once per week to six times or more per week:

Frequency of water supply

Base: all respondents

Base:	(344)
	%
1-2 times per week	21
3-4 times per week	21
5 times per week	14
6 times or more per week	32
Don't know	12
Total	100

- The great majority of householders report that the amount of water they receive is sufficient to meet their needs.

Sufficiency of supply

Base: all respondents

Base:	(344)
	%
Is sufficient	90
Is not sufficient	10
Total	100

- The reported sufficiency of mains supply is underlined by the fact that only 8% of households need to buy water from tankers.

- Only half (51%) of the residents interviewed had taken steps to conserve water in their homes. Several different actions had been taken but none at a wide, concerted level.

Action to conserve water

Base: all respondents

Base:	(344)
	%
Using only when necessary	18
Sweeping rather than washing floors	8
Bottles in toilet tanks	6
Partial opening of faucets	5
Use of bowl for dishwashing	5
Reduced frequency of laundry	4
Bucket to clean car	3
Install water saving device faucets	3
Re-use of water	2
Maintenance/repair	2
Other actions	3
Nothing done	49

2. Laundry Habits

- Non- automatic washing machines are the most common, the non-automatic twin tub being the most widely owned type.

Type of washing machine

Base: all respondents

Base:	(344)
	%
Non- automatic twin tub	53
Non- automatic single tub	8
Any non- automatic	61
Automatic front loading	26
Automatic top loading	9
Any automatic	35
No machine	4
Total	100

- Laundry frequency varies considerably from once per week to daily but the majority report washing only once or twice per week.

Frequency of laundry

Base: all washing machine owners

Base:	(332)
	%
1-2 times per week	72
3-4 times per week	17
5 times or more per week	7
Less than once a week	4
Total	100
Average frequency	2.1 times per week

- The number of loads per wash ranges from one to five or more., the average number of loads being almost 3.

Number of loads per week

Base: all washing machine owners

Base:	(332)
	%
1 load	14
2 loads	31
3 loads	29
4 loads	13
5+ loads	13
Total	100
Average	2.8 loads

- Simple multiplication of the total number of washing occasions by the average number of loads gives a total of 1901 loads per week among 332 households, an average of 5.7 loads per household per week.

3. Cars and Gardens

- Three- quarters of the households covered by the survey own a car, the average number of cars owned among the sample being about.

Car ownership

Base: all respondents

Base:	(344)
	%
No car owned	26
One car	47
Two cars	21
Three or more cars	6
Total	100
Average per household	1.1
Average among car owners	1.5

- Frequency of car washing ranges widely from less than once per week to daily but the majority do so only once per week.

Frequency of car washing

Base: all car owners

Base:	(253)
	%
Once per week	56
2-3 times per week	20
4+ times per week	5
Less than once per week	19
Total	100

- Over a half of car owners wash their vehicles themselves. The use of a hose for this purpose is relatively high.

How cars washed

Base: all car owners

Base:	(253)
	%
Use a hose	18
Use a bucket	42
Go to car wash	40
Total	100

- The majority of respondents had a garden, among whom the average watering frequency is 1.6 times per week.

Frequency of watering the garden

Base: all respondents

Base:	(344)
	%
No garden	38
Have garden	62
Average	1.6times per week

4. Water Storage and Rain Water Collection

- By far the predominant means of water storage is in tanks, relatively few households having a reservoir

Means of water storage

Base: all respondents

Base:	(344)
	%
Water tanks	95
Reservoirs	7
Do not store	3

- Only 13% of respondents reported collecting rain water

5. Plumbing Fixtures, Leakage and Repairs

- Among the households covered by the survey, the average number of faucets inside the house was 4.7 and the average number of outside faucets was 1.2
- Only a minority (6%) of households reported having a leaking faucet, a lack of time, a lack of knowledge of how to effect a repair and cost being the barriers to fixing the leaks.
- 33% of households had Turkish bathrooms and almost all (96%) has western bathrooms.
- 90% of households had toilet tanks in their bathrooms of which only 7 % had a dual flush system
- 35% of those having a tank reported that it was of 6 liter capacity but a further 48% did not know its volume
- Only 6% of those with toilet tanks reported a leakage, a lack of time, lack of time, lack of know-how and cost being the main barriers to fixing.
- Virtually all (97%) of households have a shower, most having one unit only. Only 3% of these reported a leakage.
- The great majority (91%) of households claimed that it took only 1-2 days to have any leaks repaired. Most (62%) rely on a plumber for such work.

6. Water Billing

- The majority (92%) of households report receiving their water bill every 3 months.
- The reported amount of bills ranged widely from over JD 100 per cycle to JD 2.00 per cycle, the average among all households being JD 17.80.

Although the majority of households believe that they pay as much as they have consumed, a third feel that they pay for more than they consume.

Bill compared to consumption

Base : all respondents

Base:	(344)
	%
Pay as much as consumed	59
Pay more than consumed	33
Pay less than consumed	2
Don't know	6
Total	100

7. Water Saving Devices

- 59% of respondents claimed to have heard of water savings devices.
- 50% of respondents had seen or heard of the three specific devices described to them

Awareness of specific devices

Base : all respondents

Base:	(344)
	%
Aerators on faucets	43
Aerators on showers	22
Toilet tank with 6 liter capacity	23
None of these	50

- 81% of respondents claimed that they would be willing to install such devices in their homes, aerators on faucets being the most widely favoured.

8. Flow Rate by Toilet Tank Leakage

Incidence of toilet tank leakage does not vary significantly according to flow rate.

Incidence of leakage of toilet tanks

Base: All respondents

		Leaks	No leaks
Flow rate	%	5	95
0 – 5	%	3	97
5.1 – 10	%	7	93
10.1 – 20	%	7	93
20.1 - +	%	7	93

9. Number of Faucets Leaking by Flow Rate

- Households with a lower flow rate are the most likely to have leaking faucets.

Incidence of leaking faucets

Base: All respondents

		Leaks	No leaks
Flow rate		6	94
0 – 5	%	9	91
5.1 – 10	%	5	95
10.1 – 20	%	5	95
20.1 - +	%	-	100

10. Awareness of Devices by Means of Water Storage

Households having reservoirs are marginally, but not significantly, less likely to be aware of aerators for showers.

Awareness of Devices

Base: All respondents aware of means of storage

	Water tanks	Reservoirs
Base		
Aerators for faucets	44	43
Aerators for showers	23	17
6 liter capacity toilet tank	24	22

11. Awareness of Devices by Age and education

- There is little correlation between awareness of water saving devices and age. Householders aged 25 – 34 years are the most likely to be aware of any of these devices.
- Those having no formal education or who achieved elementary level only are the least likely to be aware of water saving devices. Those of secondary education are more likely to know of these devices than those who had gone on further education.

Awareness of Devices by Age and Education

Base: All respondents

		Faucet	Shower	6 liter toilet tank	Aware any	Aware all
Age						
18-24	%	36	36	33	45	55
25-34	%	52	24	30	58	42
35-44	%	42	21	21	50	50
45-54	%	48	26	20	54	46
55+	%	32	13	14	39	61
Education						
No formal	%	27	14	10	31	69
Elementary	%	31	13	14	34	66
Intermediate	%	37	18	16	45	55
Secondary	%	52	31	32	62	38
Post secondary	%	41	17	23	48	52
University	%	47	24	22	55	45

12. Willingness to Install Devices in home

(i) By means of water storage

- Means of water storage does not have a bearing on willingness to install these devices.

	Water tanks	Reservoirs
Base	(327)	(23)
	%	%
Willing to install	82	78
Not willing	11	17
Don't know	7	4

(ii) By flow rate

- There is some indication that households with a higher flow rate are less likely to be willing to install these devices although differences are not significant.

	0-5	5.1-10	10.1-20	20.1+
Base	(80)	(130)	(120)	(14)
	%	%	%	%
Willing to install	90	88	87	86
Not willing	10	12	13	14

(iv) By amount paid per cycle

- Those paying JD 21 and over per cycle demonstrate a greater willingness to install those devices.

	Up to JD5	JD 6-10	JD 11-20	JD 21-50	JD 51+
Base	(98)	(84)	(93)	(54)	(15)
	%	%	%	%	%
Willing to install	87	87	87	93	93
Not willing	13	13	13	7	7

(v) By age

- Younger householders (18-24 years) are somewhat less willing to install these devices than other age groups.

		Willing	Not willing
Age			
18-24	%	73	27
25-34	%	80	20
35-44	%	83	17
45-54	%	83	17
55+	%	80	20

(vi) By education

- Those of higher education are more likely to be willing to install these devices.

		Willing	Not willing
Education			
No formal	%	72	28
Elementary	%	71	29
Intermediate	%	71	29
Secondary	%	89	11
Post secondary	%	80	20
University	%	88	12

13. Flow rate by Age of Building

- Flow rate is lowest in newer buildings, those of 11-15 years of age reaching the highest average flow.

	Less than 5 years	5-10 years	11-15 years	16-20 years	21+ years
Base	(33)	(62)	(54)	(71)	(124)
	%	%	%	%	%
Up to 5	19	25	14	24	24
5.1 – 10	57	39	35	39	36
10.1 – 20	24	34	49	33	33
20.1 +	-	2	2	4	7
	100	100	100	100	100
Average flow	8.0	9.2	11.1	10.3	10.4

P.S.

Water saving devices are now called water saving pieces.
Aerators are now called ‘water savers.’”